

SOIL MOISTURE SUMMARY

September 5, 2002

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Soil moisture conditions at the end of August were generally below normal across southern Illinois and above normal across northern Illinois.

Above average precipitation fell across northern Illinois in August, but rainfall was below average in most southern counties. As a result, soil moisture conditions varied greatly from north to south (Figure 1). In the 0- to 6- and 6- to 20-inch layers, above normal soil moisture conditions were observed across most of northern Illinois, maximizing near 200 percent of normal at Topeka (Mason County). Conversely, soil moisture over the southern third of the state was less than 50 percent of normal in the 0- to 6-inch layer and less than 25 percent of normal in the 6- to 20-inch layer. In the 20- to 40- and 40- to 72- inch layers, soil moisture was above normal in west-central and east-central Illinois and again below normal in parts of southern Illinois. Maximum moisture amounts continued at Topeka, near 200 percent of normal, but values were less than 25 percent of normal at Belleville (20- to 40-inch layer) and at Brownstown (40- to 72-inch layer). Overall, soil moisture in Illinois at the end of August was slightly above normal (Figure 2).

Compared to one month ago, actual soil moisture generally increased in all layers across northern Illinois and decreased over southern Illinois. In the 0- to 6-inch layer, the largest increase occurred at Freeport (89 percent) while the largest decrease was found at Carbondale (47 percent). In the 6- to 20- inch layer, large increases occurred at Freeport (221 percent), Monmouth (96 percent), and at DeKalb, Champaign, and Bondville (55, 44, and 43 percent, respectively), while Carbondale and Belleville showed the layer's largest decreases (36 and 28 percent, respectively). Peoria, Champaign, and Freeport showed the greatest increases in the 20- to 40-inch layer (roughly 30 - 40 percent), while the decreases in southern Illinois were relatively small.

Extended climate outlooks issued by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Climate Prediction Center for September and for climatological autumn (September through November) call for equal chances of above, below and normal temperatures and precipitation across Illinois.

Table 1. Soil Moisture in Various Layers on September 1, 2002

<i>Location</i>	<i>Sep 1 0 - 6 (inches)</i>	<i>Change from Aug 1 (%)</i>	<i>Sep 1 6 - 20 (inches)</i>	<i>Change from Aug 1 (%)</i>	<i>Sep 1 20 - 40 (inches)</i>	<i>Change from Aug 1 (%)</i>
Freeport (NW)	1.7	89	4.4	221	6.9	28
DeKalb (NE)	1.6	28	4.5	55	5.9	1
Monmouth (W)	1.6	33	4.6	96	6.5	19
East Peoria (C)	1.8	8	4.9	12	7.8	40
Topeka (C)	0.9	-25	2.6	-9	3.1	-8
Stelle (E)	1.4	-18	4.7	6	5.2	1
Champaign (E)	1.7	11	5.0	43	6.1	32
Bondville (E)	1.8	26	4.5	44	7.6	10
Perry (WSW)	1.7	21	5.0	3	7.5	-6
Springfield (WSW)	1.7	15	4.6	13	6.6	-1
Brownstown (ESE)	0.7	17	1.7	5	6.1	-4
Olney (ESE)	0.9	-6	3.3	-1	6.5	-1
Belleville (SW)	0.6	-17	0.3	-28	5.2	-6
Carbondale (SW)	0.7	-47	1.5	-36	5.6	-15
Ina (SE)	1.0	-23	3.8	-13	7.4	-4
Fairfield (SE)	0.8	-8	3.1	-6	6.7	-4
Dixon Springs (SE)	0.8	-22	2.1	18	5.7	-5

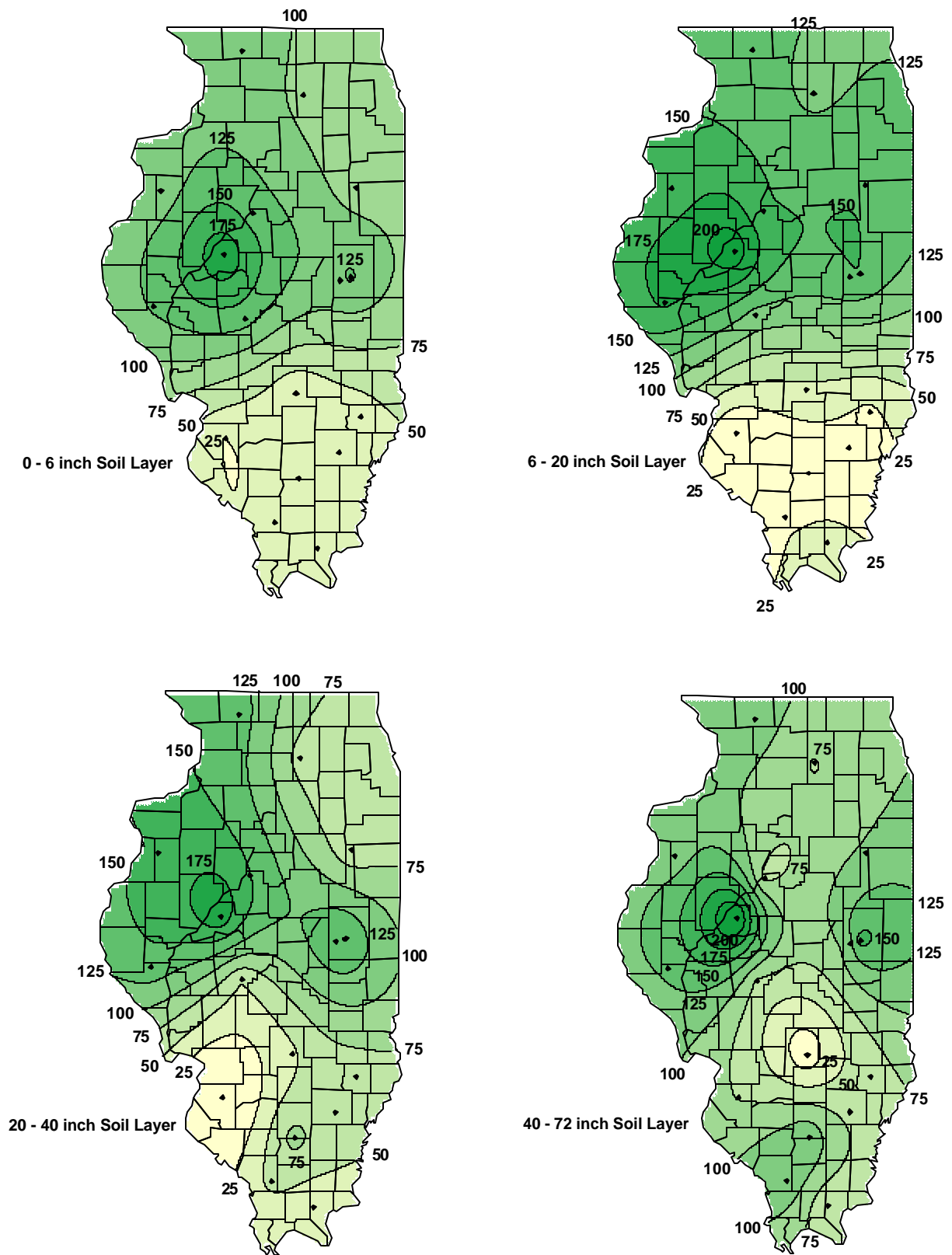


Figure 1. September 1, 2002 observed percent of normal soil moisture based on 1985-1995 mean.

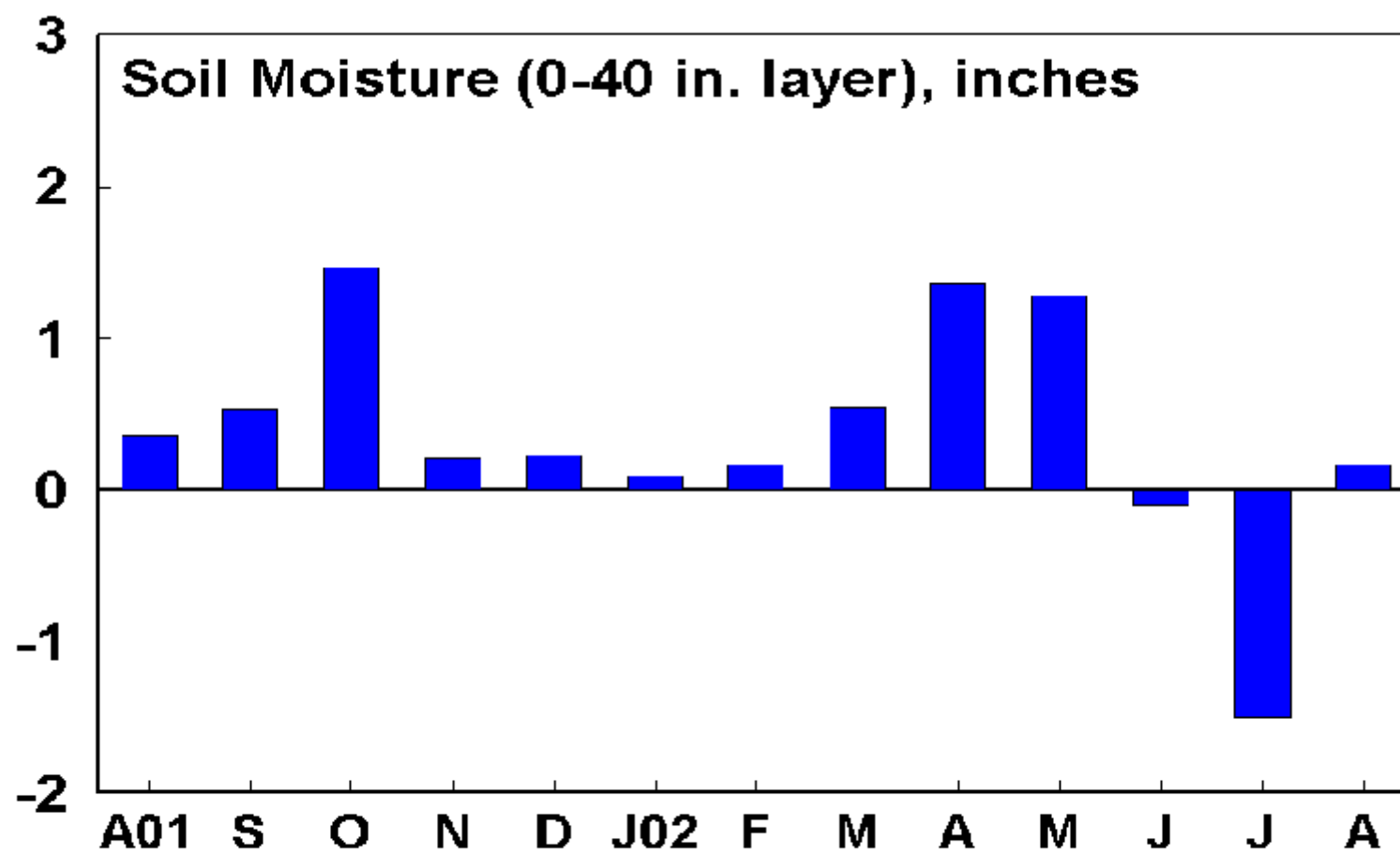


Figure 2. Illinois departures from normal (1985 - 1995 mean).